Quarterly Market Outlook & Strategy Letter

Onward and Upward!

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A Peek Into our Dynamic Allocation Process

Second Quarter of 2018

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KPF GLOBAL
Our Perspective. Your Peace of Mind.

Executive Summary

- On the occasion of the firm's tenth anniversary, last quarter we shared some of the many lessons learned over the years in this business. In the introduction to this letter we look ahead, to describe the shape this firm is likely to take over the next decade. Our plan for the future is to: remain small; serve private & non-profit clients; retain our focus on research & investment results; hire only the best advisors; streamline our operations; and decentralize responsibility, while encouraging greater communication and collaboration.

- The global economic recovery is becoming increasingly reliant on the United States, which led to bifurcation in global asset returns during Q2. US stocks and the dollar rebounded strongly, while international assets performed poorly. Natural resource stocks tracked oil prices higher, although this lent little support to the emerging markets.

- At the cornerstone of our investment philosophy is an awareness that purchase price is the primary determinant of *long-term* (5+ year) asset returns. However, over *medium-term* (1-3 year) horizons, an evaluation of the business cycle, liquidity conditions, and sentiment are necessary for sound investment decisions.

- Here, we provide an inside look at the indicators we use to assess the medium-term outlook for stocks vs. bonds. Our signals show that the stock market cycle is not only mature, but at risk of a substantial drawdown over the next few years. This is driven by a unfavorable combination of tightening liquidity, weakening business operating conditions, one-sided investor positioning, and extreme equity valuations. It's time to hold your nose and buy bonds.

- We've been gradually reflecting this view in client portfolios since last summer. We began by taking profit on certain high-octane overseas investments and increasing our holdings in short-duration fixed income and TIPS. In early 2018, we rotated cyclical US equity exposure into a conservative covered-call strategy focused on high-quality large cap stocks, while building a long US dollar position. Now, we are taking a more meaningful step out of global equity markets, reducing exposure to high-beta areas such as US small cap and international equity, and further increasing exposure to cash, short/moderate-duration fixed income, and the US dollar.

- While bear markets can be unnerving, they pave the way for higher future returns by re-aligning asset prices with underlying fundamentals. Our dynamic allocation strategy seeks to mitigate portfolio drawdowns while this re-alignment takes place, and eventually scale into better opportunities as they appear. For the prepared investor, market volatility is to be embraced, not feared!

Onward & Upward!

On the occasion of the firm's tenth anniversary, last quarter we shared some of the many lessons learned over the years in this business. With this letter we look ahead, to describe the shape this firm is likely to take over the next decade. The KPF Global team performs this retro- and prospective exercise annually, as part of our year-end retreat. We start by reviewing and reaffirming our values as a firm, to answer the essential question: *Why are we all here?* We believe the following characteristics define the KPF Global ethos, and are presented alongside some favorite quotes that capture the spirit of our enterprise:

Our Values

- **We welcome opportunities for learning, adaptation & improvement**

  Do your best until you know better. When you know better, do better – Maya Angelou

- **We choose quality over quantity along virtually every dimension**

  Try not to become a man of success. Rather, become a man of value – Einstein

- **We demonstrate genuine care & concern for our clients**

  The smallest act of kindness is worth more than the greatest intention – Kahlil Gibran

- **We care deeply about honesty and transparency**

  Sunlight is the best disinfectant – Louis Brandeis

- **We take our work seriously, but not ourselves**

  I'm so clever, sometimes I don't understand a word of what I'm saying – Oscar Wilde

These values bind us together in a common enterprise that, we hope, will transcend the challenges of our time and serve the needs of generations of clients to come.

Our Strengths

In building a successful business, we strive to understand our strengths as well as our limitations, so that we can provide a unique and valuable service to clients. We understand that we cannot be everything to everyone, and would rather do a few things really well than overextend ourselves and fail. As a team, we've identified the following as our core strengths:

- Intellectual leadership that illuminates secular trends, risks and opportunities
- A singular, well-defined and carefully-executed investment philosophy, which produces superior long-term results
- Comprehensive, customized & integrated financial advice
- Proactive service with a personal touch, which caters to a diverse clientele
- The highest ethical standards in business

Our Priorities

In light of our identified strengths, we considered what balance of professional skills, personal attributes, and organizational priorities will ensure that we continue to provide outstanding service to our clients in the years ahead. We determined that we will:

- **Remain small**. The firm has grown slowly but steadily over many years, through word of mouth and client referrals. Organic growth has allowed us to focus on serving existing clients and improving our offerings, rather than seeking new clients. We plan to continue our low-key approach.
- **Serve private & nonprofit clients**. Over the past year we considered the possibility of extending our services to retirement plan participants and other institutional clients. We decided that would take us too far from our core mission. We reaffirmed that a balance of private & non-profit clients would promote diversity and social responsibility in our business, while keeping us focused on what we do best.
- **Prioritize research and investing**. While many RIAs have outsourced investment management to other firms or adopted passive investment strategies for their clients, we have and will remain focused on delivering superior risk-adjusted returns through innovative research. We have been continuously improving our financial planning and risk assessment tools, as well as our strategic and dynamic asset allocation processes—ongoing work that is described in this and other quarterly letters.
- **Hire only the best.** Given our high standards for investment performance and client service, we will hire only individuals with strong analytical skills who *also* demonstrate passion for this work, empathy toward others, and a strong aptitude for learning and adaptation. Selling skills have no place in our firm, whereas collaboration is essential.
- **Emphasize service.** In order to ensure our clients receive outstanding service and support, we will maintain a low client-to-advisor ratio. This has ranged over the years from 10-20 clients per advisor, and will never exceed 30. All clients will continue to enjoy the support of two advisors with complementary skill sets.

- **Streamline operations.** We are in the process of building a centralized database & analytic tools to facilitate customized and efficient risk management & reporting. This infrastructure will allow us to boost our advisor-to-operational staff ratio to 2:1, while providing value-added service to clients.
- **Decentralize responsibility.** We have structured organizational responsibilities in a way that promotes autonomy and accountability, while improving lateral communications and collaboration across the team. This management structure supports our plan for an internal succession of leadership over the coming decade. You can find our innovative organization chart in the appendix to this letter!
- **Refresh our message**. We want to make sure that, as we grow, we attract only those clients and staff who value our investment approach and client-centered service model. To ensure that our priorities are clear, we have reviewed not only our mission but our message. We look forward to sharing the results with our clients and friends over the coming months.

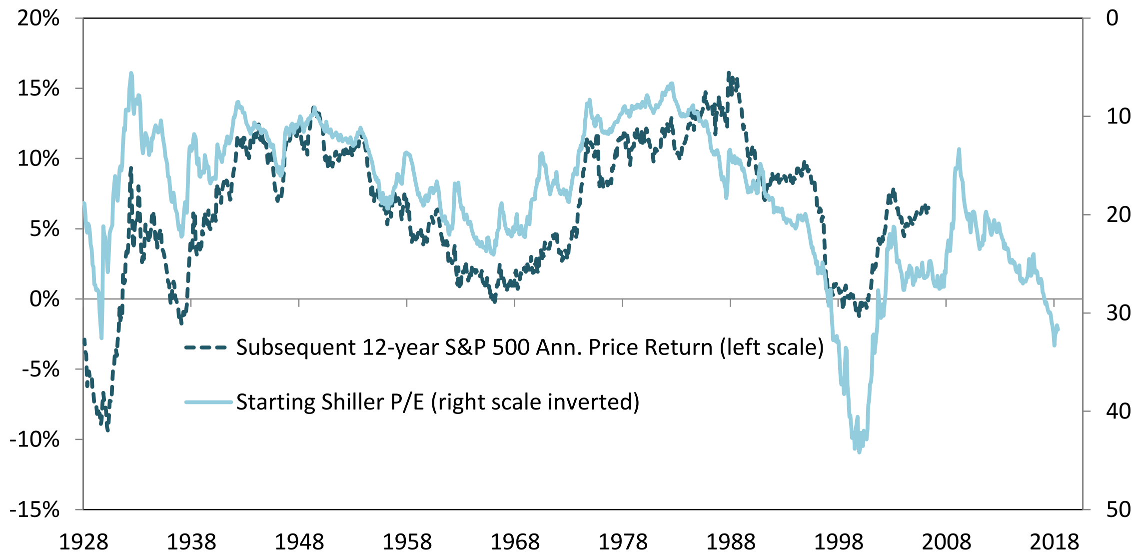
Opening the Research Kimono

Since transparency is one of our core values, we regularly share and welcome feedback on the analysis that underpins our asset allocation process. This quarter, we describe new business cycle research that supports our dynamic allocation policy. As our readers well know, KPF Global employs a value-oriented investment strategy. We construct diversified portfolios that are tilted towards attractively-priced assets, which offer the prospect of high expected returns. This approach is particularly effective over long time horizons: we've observed that high valuations lead inevitably to lower future long-term returns, and vice-versa. Figure 1 below compares starting S&P 500 valuations (represented here by the Shiller Cyclically-Adjusted P/E ratio, the light blue line on an inverted right scale) with subsequent 12-year US equity returns, illustrating this strong negative correlation. Currently, the valuation of the S&P 500 is the highest ever outside of the Dotcom bubble, implying subpar US equity returns going forward.

Because of this reliable link between purchase price and long-term return, valuation is a key driver of our *strategic allocation* decisions. However, over shorter horizons, factors such as market liquidity and business cycle dynamics assert themselves more prominently in equity returns. Indeed, under favorable economic conditions, valuations can take many years to revert to the norm, as the experience of the late 1990s and past several years illustrate. This is an important consideration for our *dynamic asset allocation* strategy, which allows for deviation from our clients' strategic portfolio targets, in order to manage interim risks and opportunities. The question is: what other data can be marshalled to forecast short- to medium-term (i.e., 1-3 year) expected returns?

Figure 1. Starting Valuations vs. Long-Term US Equity Returns

Jan 1928 - May 2018



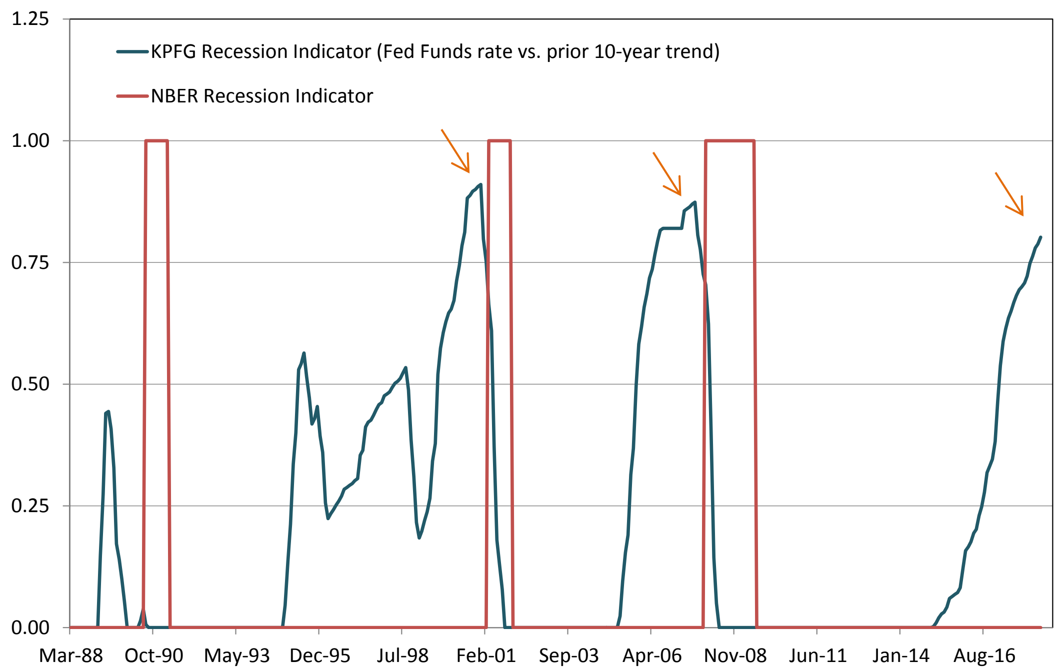
Our asset allocation research focuses primarily on economic and financial data that is not published front-and-center on the Bloomberg economic calendar, and therefore is less likely to be understood by investors—and already reflected in market prices. In some cases, we transform this data (i.e., smooth, rescale, and/or combine it with other information) in order to uncover predictive power that might not be evident from a superficial read of the news. Always, we use our top-down macroeconomic expertise to formulate hypotheses regarding which data could be useful for market forecasting, which we then test for its information content.

In this discussion, we focus on models that are designed to assess the tradeoff between stocks and bonds, the dominant exposures in client portfolios. Typically, equities are the "risky" option, as these perform well in periods of economic growth and/or abundant liquidity. By contrast, bonds are the "safe" asset class, doing better in periods of crisis, recession, and/or deflation. Since bear markets in stocks rarely occur in the absence of recession, forecasting the likelihood of one is vital for an allocation approach that seeks to mitigate portfolio drawdowns.

Our research suggests that the performance of stocks vs. bonds principally reflects four factors: liquidity conditions, corporate profitability, investor sentiment, and valuations. We have written extensively about the importance of valuation as a long-term driver of equity returns, so will focus here on the other three influences. We start with the link between liquidity conditions and recessions. In a credit-based economy, a sharp rise in the cost of obtaining credit (interest rates) typically leads to a slowdown and eventually an outright contraction in growth.

The question naturally arises as to what constitutes a "sharp" rise in rates. We've found that the level of interest rates *relative to the recent trend* (as opposed to the absolute level of rates) has been a reliable gauge of recession odds in the past. This statement shouldn't be controversial, since interest rates have been in a downtrend since 1980—the level of rates that is sufficient to trigger a recession has fallen progressively. Figure 2 illustrates the deviation from the recent trend of the Federal Funds rate (blue line) alongside the National Bureau of Economics Recession Indicator (red line). It shows that the recent increase in interest rates (detrended) has been comparable to the change that triggered recessions in the late 1990s and 2006-07:

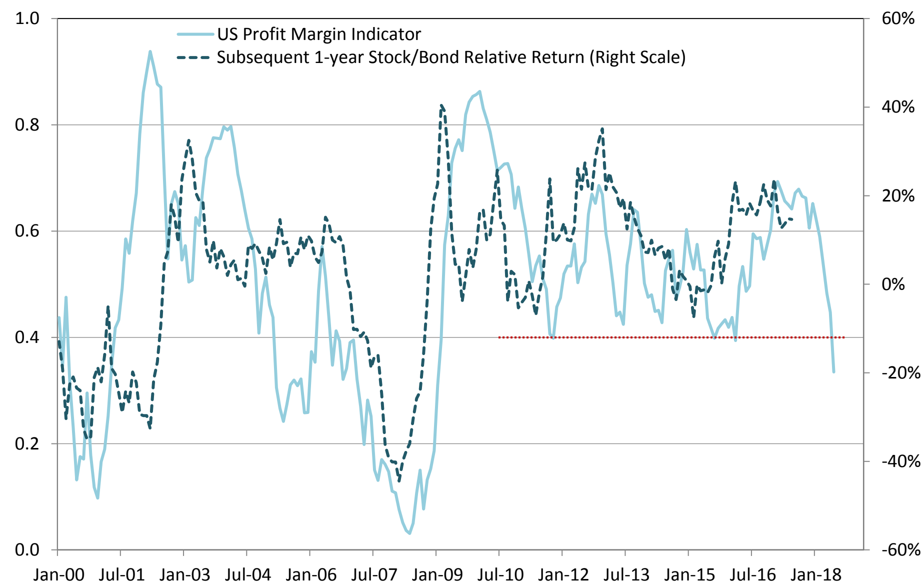
Figure 2. Recession Indicators: Ours and Theirs
Mar 1998 - Jun 2018



This tightening in liquidity conditions is impacting the real economy, notwithstanding strong job growth and rising wages. For example, auto loan and credit card delinquencies have been ticking higher in recent years, and have accelerated since the first quarter of 2018. These are classic early warning signs of economic downturn. With respect to the business cycle, we are more focused on the operating environment for *corporations* than on GDP growth, nonfarm payrolls, and other economywide indicators. After all, the stock market reflects the discounted stream of *future* earnings, which does not always track current economic performance. Indeed, although the current recovery is substandard by many measures, it has produced some of the strongest stock market returns of any bull market, helped by low interest rates, muted wage growth, subdued input costs, and corporate tax cuts.

To measure corporate profitability, we look at measurements of labor costs (wages), input costs (commodity prices) and interest expense (debt spreads), in addition to revenue proxies (purchasing manager surveys and industrial metals prices). Many of these metrics are available in real-time or early in the month, well ahead of corporate earnings and GDP reports. Thus, we are able to update our models before before the earnings "news" is fully reflected in market prices. Figure 3 shows our corporate profit margin indicator (light blue line) versus the subsequent 1-year relative return for US stocks versus bonds (dotted dark blue line):

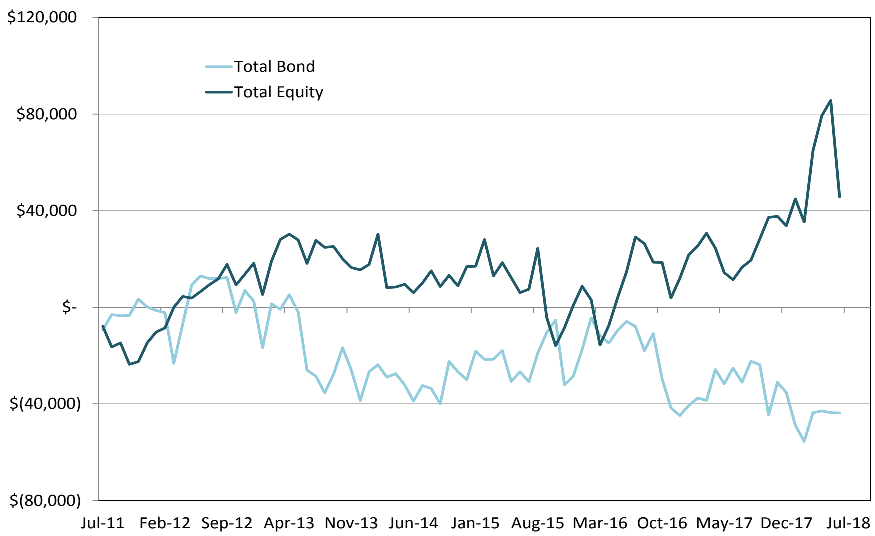
Figure 3. Corporate Operating Conditions
Jan 2000 - Jun 2018



Although the environment for earnings (driven primarily from the cost side) has been favorable over the past decade, conditions have deteriorated recently. This owes to a combination of rising interest rates, commodity prices, and wages—along with a softening of overseas demand. As a consequence, our profit margin indicator has fallen to a cyclical low. While we saw record earnings in 1Q18 and lofty expectations for 2Q18, the factors driving this strength have largely run their course. Most notably, the boost from the corporate tax cut will fade as abruptly as it emerged. Moreover, growth in earnings is becoming increasingly concentrated, as smaller/less favored corporations have not enjoyed the same windfall as the S&P 500 constituents. For example, the Bureau of Economic Analysis reports that *economy-wide* corporate profits only reclaimed their 2014 high-water mark in 1Q18, while S&P 500 earnings exceeded the previous record by more than 18% - a divergence that is typical of an aging business cycle.

Which brings us to investor sentiment. In addition to the fundamental data described above, we look at market indicators such as investor positioning and cross-asset relationships to inform our views on stock vs. bond returns. Investor positioning can be used to infer the degree to which one's fundamental view is already reflected in investor behavior. For example, if fundamentals are negative for equity markets (as they now appear to be), but the investor community is already underweight/short equities, it is likely that the market has already "priced in" these negative fundamentals. However, Figure 4 shows quite the opposite: despite a significant move higher in interest rates and a deterioration in operating conditions, investors are extremely long stocks (shown in dark blue) and short bonds (in light blue):

Figure 4. Futures Market net positioning ($mn)
Jul 2011 - Jun 2018



Admittedly, this is far from an exhaustive sampling of investor positioning across investment venues and time horizons, but it does provide a solid real-time indicator of sentiment amongst tactical traders. It is worrisome that, despite the maturity of the profit and liquidity cycle, positioning and sentiment are more risk-seeking than at any time been since the bull market began. In the past, extremes in futures market positioning have acted as a reliable contrarian indicator for asset prices.

Lastly, cross-market indicators are useful for identifying potential turning points in investor risk appetite, and therefore stock returns. Credit spreads, which measure the cost of borrowing for a corporation or government (relative to the risk-free rate), are the classic example. Corporate bond spreads often signal deterioration in the economy ahead of the stock market. Figures 5-6 show that credit spreads have been widening alongside rising equity market volatility—and both trends correlate with a deteriorating stock/bond return ratio.

Figure 5. Credit Spreads vs. Stock/Bond Ratio

Percentile Scores; Dec 1993 - Jun 2018

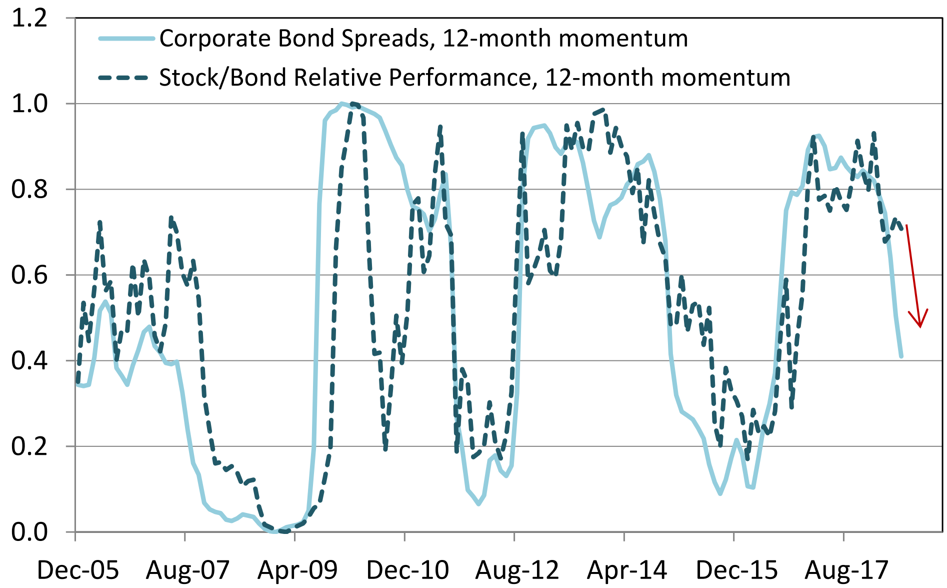
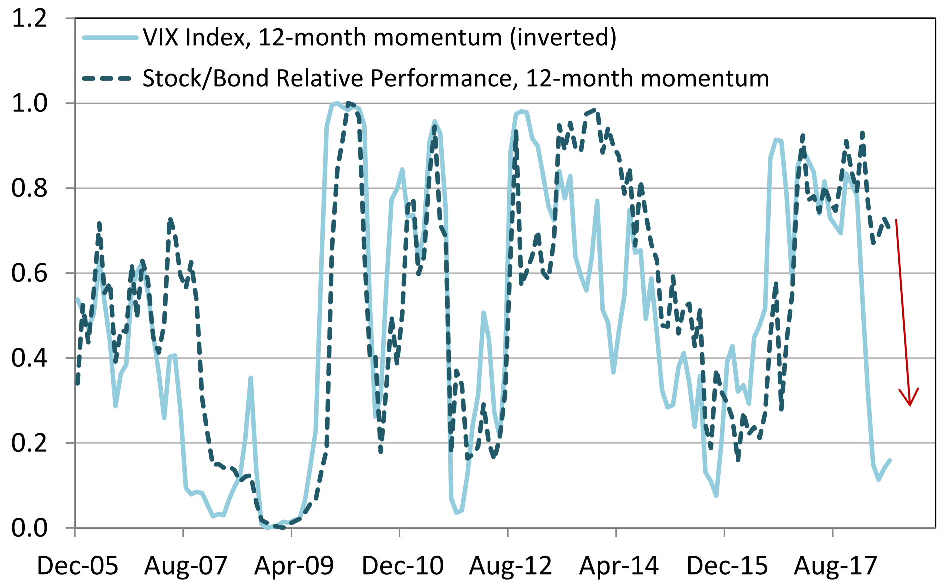


Figure 6. VIX vs. Stock/Bond Ratio

Percentile Scores; Dec 1993 - Jun 2018

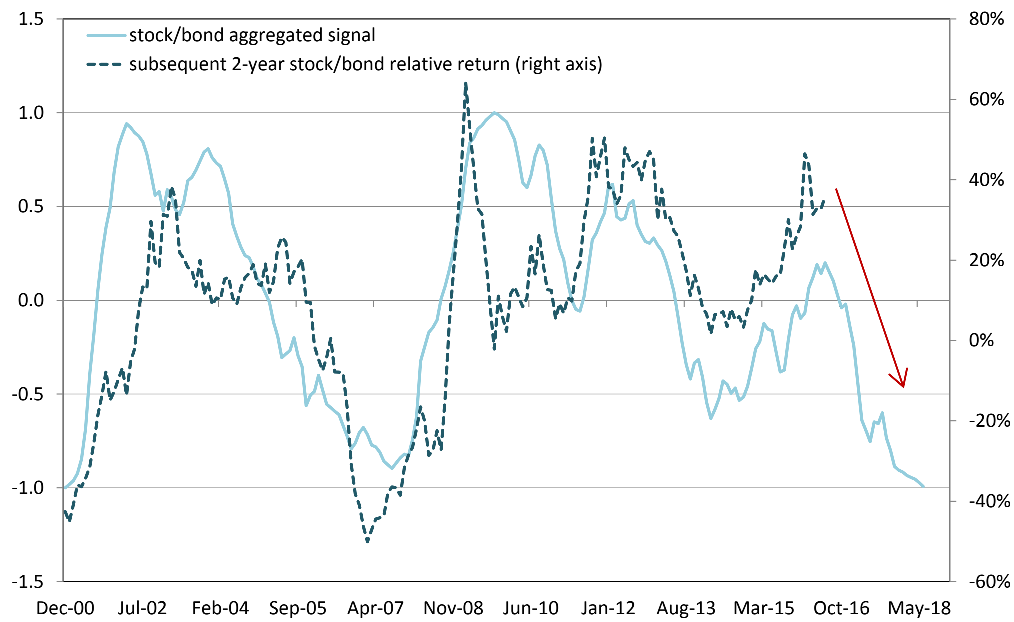


More generally, we've observed a rise in volatility amid a range-bound equity market, as well as increasingly disparate messages from cyclical asset classes. These trends indicate a breakdown in consensus and a change in the distribution of buyers and sellers (smart money is selling to the late arrivals). We view these rises in episodic volatility and asset dispersion as tremors before the big quake.

We've now analyzed the returns to stock vs. bonds through the lenses of our valuation, liquidity, fundamental, and technical indicators. The final step is to aggregate these into a composite indicator that can be used to inform our asset allocation posture. Figure 7 below shows our composite signal for the stock/bond return (light blue line) against subsequent 2-year relative returns. The indicator does not have a perfect record of forecasting 2-year stock vs. bond returns (nothing does), but does a reasonably good job of identifying major turning points. The current message is clear, and negative – indeed, more so than in 2015, when we first became concerned about stock market valuations.

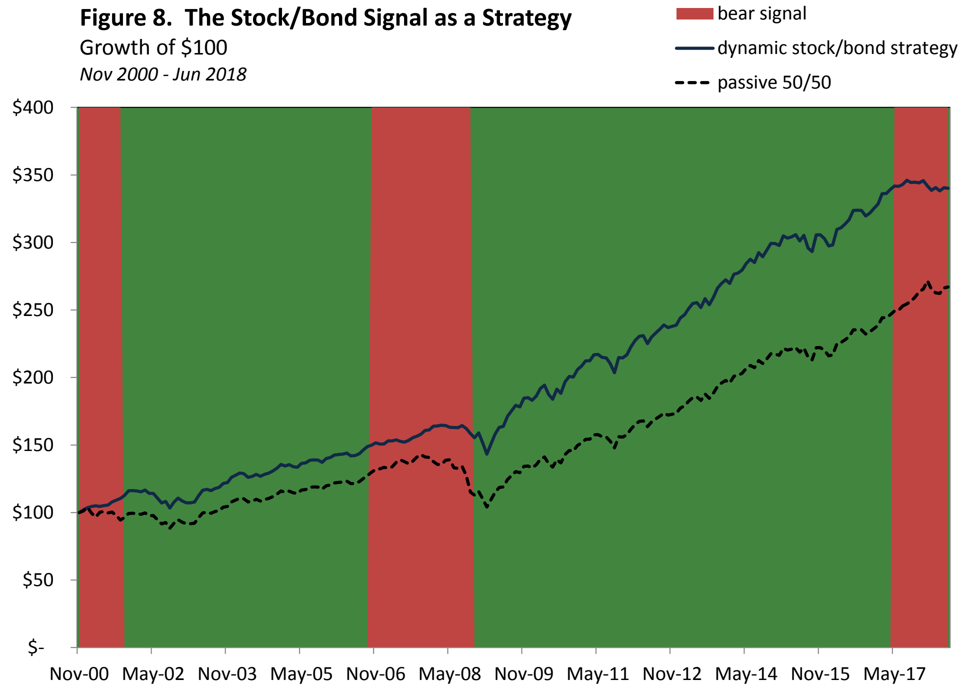
Figure 7. Dynamic Stock vs. Bond Forecast

Dec 2000 - Jun 2018



To illustrate the information content of the indicator, and for purposes of portfolio management, we've backtested a simple strategy that invests 100% in the Barclays Aggregate Bond Index when the indicator registers a "bearish" reading (lower than -0.75, consistent with past bear markets), and allocates to a 50/50 US stock/bond portfolio otherwise (a moderate-risk allocation). We've tested the performance of such a strategy against a passive investment in a 50/50 portfolio, as shown below. [1]

[1] This is not how we actually allocate capital; our approach to portfolio management is far more nuanced. But the simplicity of the backtest serves to more clearly illustrate the signal's value.



	Ann. Return	Ann. Vol	Max. Drawdown
dynamic strategy	7.2%	6.1%	-13.0%
passive 50/50	5.7%	7.1%	-27.1%

Given the potential for a higher return, lower volatility, and much smaller drawdown, one might ask: Why not just leave everything up to the model? The reason is that backtests always overstate performance. In this example, we define the threshold for these indicators based on levels that have signaled bear markets in the past; it is by no means assured that the signal will work as well in future. Relatedly, we are dealing with a small sample problem: due to data limitations, the indicator has only been tested across two bear markets. Further, the signal triggered well ahead of past market peaks, suggesting that while it does a better job of catching inflection points than do simple valuation indicators, it is far from perfect. Nonetheless, we view these results as encouraging.

KPF Global has discussed extreme valuations and a mature business cycle for some time, so it is fair to ask whether this model simply systematizes our biases and could produce the same result—that we are early and wrong. A potential risk to this approach is that absolute levels of liquidty, which are still high, may turn out to matter more than changes in liquidity. Our models also do not take corporate stock buybacks into account, which have acted as a lynchpin for this market. Given that we may still be early, it is important to consider the foregone upside of being underweight equity vis-à-vis the potential downside risk of remaining fully invested.

In 2016 foreign stock markets were very cheap, creating the potential for significant (and fundamentally-justified) upside from a cyclical upswing. This allowed us to build a barbell portfolio strategy, with overweights to international equity and short-term fixed income, which caught the bulk of the 2016-17 rally despite our caution. Now, the overpricing of assets has become more extreme and widespread, suggesting limited potential for further gains.

KPF Global Strategy

The US stock market sits at valuations that are unmatched outside of the Dotcom Bubble, signaling subpar long-term returns. Our indicators for liquidity, profit margins, and market technicals suggest elevated odds of a turn in the business cycle over the next 12-24 months – more so than at any point in this bull market. In terms of magnitude, our stock/bond signal indicates downside potential in the US markets that is comparable to 2000-01 and 2007-08, i.e., on the order of 50+%.

Although international equity markets are more attractively valued than their US counterparts, high-beta assets will not be exempt from selling pressure in such an environment – particularly in an environment of US dollar strength, which tends to occur in periods of market stress. While high quality bonds are far from cheap, the data suggests that they are likely to outperform stocks over a 1-3 year horizon, particularly now that the 2-year US Treasury yield has risen to 2.5%.

We've been gradually reflecting this view in client portfolios since last summer. We began by taking profit on certain high-octane overseas investments and increasing our holdings in short-duration fixed income and TIPS. In early 2018, we rotated cyclical US equity exposure into a conservative covered call strategy focused on high-quality large cap stocks, and built a long-US dollar position. Now, we are taking a more meaningful step out of global equity markets, reducing exposure to high-beta areas such as US small cap and international equity, and increasing exposure to cash, short/moderate-duration fixed income, and the US dollar.

While bear markets can be unnerving, they also pave the way for higher future returns by realigning asset prices with underlying fundamentals. By anticipating these dynamics, our allocation strategy helps us to mitigate portfolio drawdowns while this realignment takes place, thereby positioning our clients to take advantage of better opportunities that will inevitably emerge. Time to buckle up!